

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333694-930

Luminaire Tested: **S125RDIW-S850D1340U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333694-930  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-S850D1340U930-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7024.4 lumens  
Efficiency: N/A  
Efficacy: 114.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

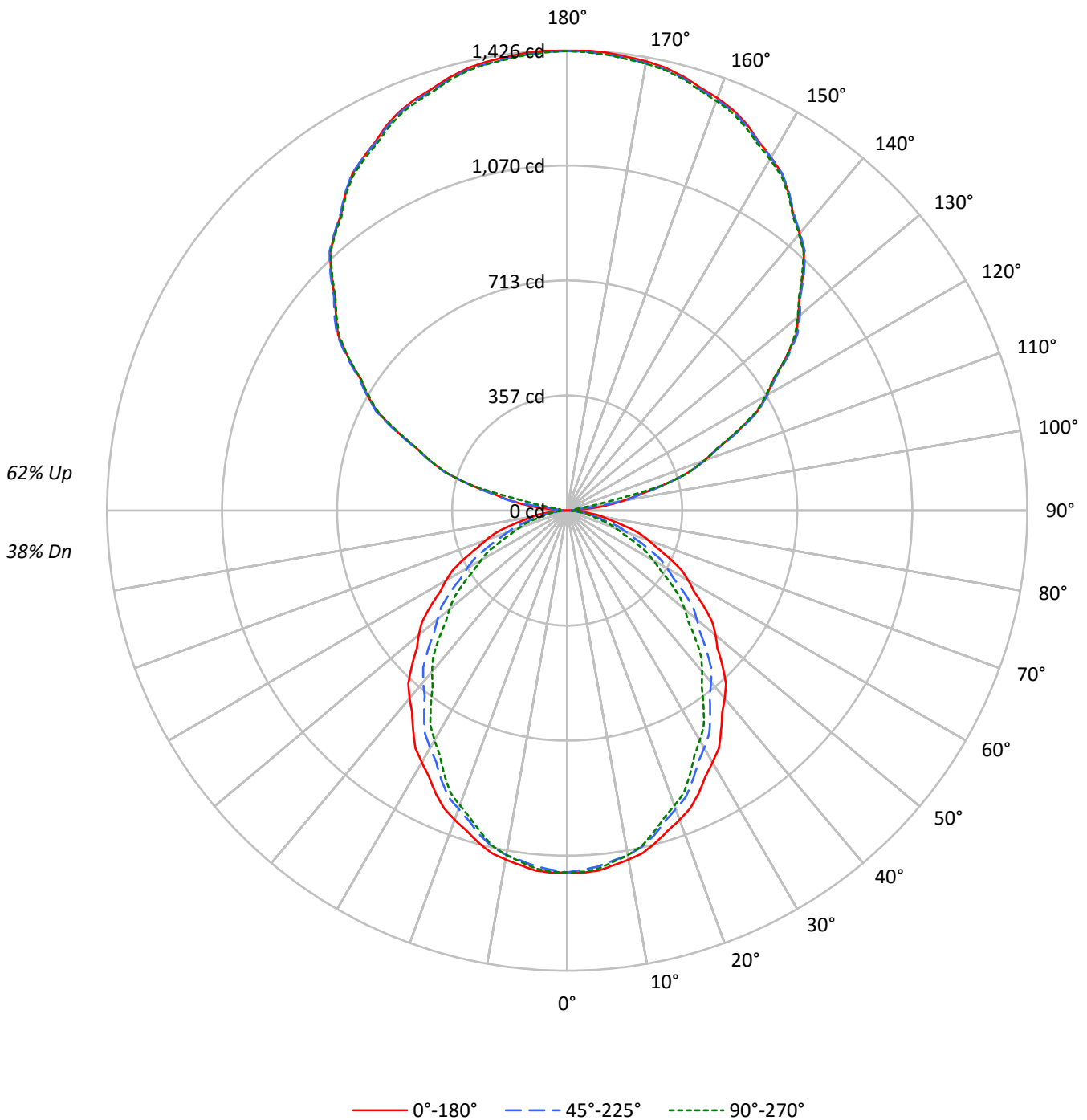
Input Watts (W): 61.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	95	91	87	84	86	83	80	77	67	65	63	53	52	50	40	39	38	32
2	87	80	74	69	79	72	67	63	59	56	52	47	44	42	35	34	32	27
3	79	70	63	57	72	64	58	53	52	48	44	41	38	36	31	29	28	23
4	73	62	54	49	66	57	50	45	46	42	38	37	34	31	28	26	24	20
5	67	55	47	42	60	51	44	39	42	36	33	33	30	27	25	23	21	17
6	61	50	42	36	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	57	45	37	32	51	41	34	29	34	29	25	27	23	21	21	18	16	14
8	52	41	33	28	48	37	31	26	31	26	22	25	21	18	19	17	15	12
9	49	37	30	25	44	34	27	23	28	23	20	23	19	17	18	15	13	11
10	46	34	27	22	41	31	25	21	26	21	18	21	18	15	17	14	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7240	7240	7240
5°	7257	7175	7219
10°	7202	7108	7108
15°	7117	6964	6907
20°	7007	6762	6681
25°	6879	6565	6420
30°	6718	6334	6131
35°	6556	6095	5807
40°	6403	5847	5490
45°	6218	5569	5142
50°	6031	5267	4782
55°	5816	4977	4396
60°	5599	4627	3981
65°	5344	4219	3506
70°	5053	3709	3021
75°	4649	3127	2515
80°	4095	2455	2109
85°	3453	2008	1882



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.4	1.5
10°-20°	294.6	4.2
20°-30°	427.2	6.1
30°-40°	486.9	6.9
40°-50°	474.6	6.8
50°-60°	399.5	5.7
60°-70°	280.0	4.0
70°-80°	143.9	2.0
80°-90°	39.3	0.6
90°-100°	51.7	0.7
100°-110°	318.9	4.5
110°-120°	578.4	8.2
120°-130°	742.3	10.6
130°-140°	798.4	11.4
140°-150°	749.4	10.7
150°-160°	606.3	8.6
160°-170°	392.1	5.6
170°-180°	135.2	1.9
0°-30°	827.2	11.8
0°-40°	1314.1	18.7
0°-60°	2188.2	31.2
0°-90°	2651.5	37.7
90°-120°	949.1	13.5
90°-150°	3239.3	46.1
90°-180°	4373.0	62.3
0°-180°	7024.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1116	1107	1115	1114	106
15°	1064	1059	1042	1040	1033	300
25°	965	952	921	910	901	444
35°	832	810	773	749	737	520
45°	681	655	610	577	563	525
55°	516	488	442	405	390	462
65°	350	320	276	243	229	346
75°	186	160	125	107	101	197
85°	47	32	27	26	25	52
90°	1	10	17	22	25	5
95°	60	55	17	22	22	77
105°	310	314	314	314	314	329
115°	583	588	589	585	578	577
125°	829	836	836	832	829	740
135°	1034	1039	1038	1035	1029	796
145°	1198	1200	1200	1201	1195	749
155°	1320	1314	1315	1318	1310	608
165°	1392	1386	1387	1393	1385	393
175°	1424	1418	1419	1426	1418	136
180°	1424	1424	1424	1424	1424	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1123.1	1122.7	1122.2	1121.8	1121.3	1120.3	1118.8	1117.3	1115.8	1114.3	1115.8
5°	1119.4	1118.7	1117.9	1117.1	1116.4	1115.0	1112.9	1110.8	1108.7	1106.7	1108.6
7.5°	1108.4	1107.7	1106.9	1106.2	1105.5	1103.9	1101.5	1098.9	1096.5	1094.0	1095.3
10°	1098.2	1097.6	1097.1	1096.5	1095.9	1094.4	1091.8	1089.1	1086.5	1083.9	1084.3
12.5°	1086.7	1086.0	1085.2	1084.6	1083.9	1081.7	1078.2	1074.6	1071.1	1067.6	1068.0
15°	1064.4	1063.2	1062.1	1060.9	1059.8	1057.3	1053.4	1049.4	1045.5	1041.5	1041.3
17.5°	1039.1	1037.4	1035.7	1034.0	1032.2	1028.8	1023.9	1018.9	1013.9	1008.9	1008.0
20°	1019.5	1017.6	1015.7	1013.8	1011.9	1008.0	1002.0	996.0	989.9	983.9	983.0
22.5°	997.8	995.9	994.0	992.1	990.3	986.2	979.8	973.5	967.2	960.9	959.0
25°	965.3	962.5	959.6	956.8	954.0	949.1	942.2	935.1	928.2	921.3	918.8
27.5°	928.1	924.6	921.2	917.8	914.4	908.9	901.5	894.0	886.6	879.1	875.6
30°	900.9	897.3	893.8	890.2	886.6	880.8	873.0	865.1	857.2	849.3	845.0
32.5°	874.5	870.3	866.2	862.0	857.8	851.7	843.7	835.6	827.5	819.5	814.7
35°	831.5	827.0	822.5	817.9	813.4	806.9	798.5	790.0	781.5	773.1	767.6
37.5°	789.3	783.8	778.4	772.8	767.4	760.3	751.5	742.7	734.0	725.3	718.8
40°	759.5	753.9	748.2	742.6	736.9	729.6	720.6	711.5	702.5	693.5	686.3
42.5°	728.4	722.6	716.8	710.9	705.2	697.7	688.3	679.0	669.6	660.3	653.5
45°	680.8	675.3	669.8	664.4	658.9	651.0	640.7	630.4	620.0	609.7	602.1
47.5°	631.5	625.7	620.0	614.2	608.5	600.4	590.0	579.5	569.1	558.6	550.9
50°	600.3	594.1	587.9	581.7	575.5	567.0	556.3	545.6	534.8	524.2	516.2
52.5°	566.5	560.1	553.8	547.4	541.0	532.8	522.7	512.6	502.4	492.3	483.8
55°	516.5	510.5	504.5	498.5	492.4	484.1	473.6	463.1	452.6	442.0	433.5
57.5°	466.0	459.6	453.1	446.7	440.3	432.0	421.8	411.6	401.5	391.3	383.1
60°	433.5	427.0	420.4	413.8	407.2	398.8	388.7	378.5	368.4	358.2	349.9
62.5°	399.0	392.7	386.5	380.1	373.8	365.6	355.2	345.0	334.6	324.3	316.7
65°	349.7	343.3	336.9	330.5	324.1	315.9	306.0	296.0	286.0	276.1	268.5
67.5°	300.8	294.3	288.0	281.6	275.2	267.2	257.6	248.1	238.6	228.9	222.1
70°	267.6	261.1	254.8	248.3	242.0	234.1	224.7	215.2	205.9	196.4	190.6
72.5°	235.1	228.8	222.6	216.3	210.1	202.5	193.7	184.9	176.1	167.3	161.9
75°	186.3	180.7	175.0	169.3	163.7	156.9	149.0	141.1	133.2	125.3	121.2
77.5°	137.9	133.3	128.8	124.3	119.8	114.4	108.0	101.7	95.4	89.1	86.2
80°	110.1	105.6	101.0	96.5	92.0	87.2	81.9	76.6	71.3	66.0	64.3
82.5°	83.0	78.9	74.8	70.8	66.7	62.9	59.3	55.7	52.0	48.4	47.6
85°	46.6	43.2	39.8	36.4	33.0	30.8	29.9	28.9	28.0	27.1	26.9
87.5°	15.8	15.1	14.4	13.8	13.0	12.8	13.0	13.2	13.4	13.5	13.8
90°	1.1	2.9	4.8	6.7	8.6	10.4	12.0	13.6	15.2	16.9	18.1
92.5°	16.2	14.9	13.6	12.3	11.0	11.1	12.6	13.9	15.4	16.9	18.1
95°	60.2	59.4	58.8	58.0	57.3	52.5	43.6	34.7	25.8	16.9	18.1
97.5°	125.6	126.9	128.2	129.4	130.7	122.5	104.8	87.2	69.5	51.9	45.3
100°	176.3	177.0	177.7	178.4	179.1	179.9	180.8	181.8	182.7	183.7	148.7
102.5°	227.8	228.7	229.6	230.5	231.4	232.1	232.7	233.3	233.7	234.3	227.7
105°	310.4	311.3	312.3	313.2	314.1	314.5	314.5	314.5	314.5	314.5	314.5
107.5°	396.1	396.1	396.1	396.1	396.1	396.3	396.8	397.2	397.7	398.2	398.2
110°	451.8	451.8	451.8	451.8	451.8	452.0	452.5	453.0	453.5	453.9	453.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	504.2	504.8	505.3	505.8	506.4	506.9	507.1	507.4	507.7	507.9	507.0
115°	582.7	583.8	585.1	586.2	587.4	588.1	588.3	588.6	588.8	589.1	588.1
117.5°	664.0	663.9	663.9	663.8	663.8	664.2	665.1	666.0	666.9	667.8	666.6
120°	714.6	714.4	714.2	714.0	713.7	714.0	714.6	715.3	716.1	716.7	716.3
122.5°	759.4	760.3	761.2	762.1	763.0	763.6	763.9	764.3	764.6	764.9	764.4
125°	828.7	830.3	831.9	833.6	835.2	836.0	836.0	836.0	836.0	836.0	835.1
127.5°	894.7	895.9	897.1	898.2	899.4	899.9	899.8	899.7	899.5	899.4	898.9
130°	935.2	936.5	937.6	938.8	940.0	940.7	940.9	941.1	941.3	941.6	940.9
132.5°	975.8	977.1	978.5	979.9	981.2	981.7	981.1	980.6	980.2	979.6	979.5
135°	1033.5	1034.9	1036.2	1037.6	1039.1	1039.5	1039.1	1038.6	1038.1	1037.6	1037.2
137.5°	1086.5	1087.6	1088.8	1090.1	1091.3	1091.7	1091.3	1090.9	1090.5	1090.1	1090.1
140°	1121.0	1121.5	1122.0	1122.4	1122.9	1123.1	1122.8	1122.6	1122.3	1122.1	1122.6
142.5°	1152.3	1152.6	1152.8	1153.2	1153.4	1153.7	1154.1	1154.4	1154.7	1155.0	1155.1
145°	1198.1	1198.6	1199.1	1199.5	1200.0	1200.2	1200.2	1200.2	1200.2	1200.2	1200.4
147.5°	1238.2	1238.1	1238.0	1238.0	1237.9	1238.0	1238.2	1238.5	1238.8	1239.1	1239.3
150°	1263.6	1263.1	1262.7	1262.2	1261.7	1261.7	1262.2	1262.7	1263.1	1263.6	1264.0
152.5°	1288.0	1287.0	1286.0	1285.0	1283.9	1283.6	1284.1	1284.6	1285.1	1285.5	1286.0
155°	1319.5	1318.1	1316.7	1315.3	1313.9	1313.4	1313.9	1314.3	1314.8	1315.3	1316.0
157.5°	1343.8	1343.0	1342.1	1341.2	1340.4	1340.0	1340.0	1340.1	1340.2	1340.2	1340.9
160°	1360.7	1359.3	1357.9	1356.4	1355.0	1354.5	1354.7	1354.9	1355.2	1355.4	1356.3
162.5°	1374.2	1372.8	1371.3	1369.9	1368.6	1368.0	1368.2	1368.5	1368.6	1368.9	1370.2
165°	1392.4	1390.9	1389.5	1388.1	1386.7	1386.1	1386.3	1386.6	1386.8	1387.1	1388.5
167.5°	1405.8	1404.4	1403.0	1401.5	1400.0	1399.5	1399.6	1399.9	1400.1	1400.4	1402.1
170°	1413.5	1411.9	1410.1	1408.5	1406.9	1406.1	1406.4	1406.6	1406.9	1407.1	1409.0
172.5°	1418.5	1416.9	1415.3	1413.6	1411.9	1411.4	1411.8	1412.2	1412.6	1413.0	1414.7
175°	1424.0	1422.6	1421.2	1419.8	1418.4	1417.8	1418.1	1418.3	1418.5	1418.7	1420.6
177.5°	1426.5	1425.4	1424.3	1423.2	1422.0	1421.6	1421.8	1422.0	1422.1	1422.3	1423.7
180°	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1117.3	1118.8	1120.3	1121.0	1120.9	1120.7	1120.5	1120.4
5°	1110.4	1112.3	1114.2	1115.0	1114.6	1114.2	1113.9	1113.5
7.5°	1096.7	1098.0	1099.3	1099.7	1099.3	1098.9	1098.5	1098.0
10°	1084.9	1085.5	1086.1	1086.1	1085.5	1084.9	1084.3	1083.9
12.5°	1068.4	1068.8	1069.2	1069.0	1068.1	1067.2	1066.4	1065.5
15°	1041.1	1040.9	1040.7	1039.8	1038.1	1036.4	1034.7	1033.0
17.5°	1007.1	1006.2	1005.2	1004.0	1002.7	1001.3	999.9	998.5
20°	982.0	981.0	980.2	978.8	977.1	975.4	973.7	972.1
22.5°	957.2	955.4	953.5	951.9	950.5	949.1	947.7	946.3
25°	916.4	914.0	911.5	909.2	907.1	905.1	903.0	900.9
27.5°	872.2	868.8	865.4	862.7	860.7	858.7	856.7	854.7
30°	840.7	836.3	831.9	829.0	827.3	825.6	823.9	822.1
32.5°	809.9	805.1	800.4	796.9	794.8	792.6	790.4	788.3
35°	762.1	756.7	751.2	747.2	744.5	741.9	739.3	736.6
37.5°	712.2	705.6	699.1	694.6	692.0	689.4	686.9	684.4
40°	679.1	672.1	664.9	660.1	657.9	655.7	653.4	651.2
42.5°	646.6	639.8	632.9	627.8	624.5	621.2	617.8	614.6
45°	594.6	587.1	579.5	574.4	571.5	568.8	565.9	563.0
47.5°	543.2	535.4	527.7	522.2	519.1	516.0	512.8	509.7
50°	508.3	500.4	492.5	487.1	484.4	481.5	478.7	475.9
52.5°	475.3	466.8	458.3	452.6	449.8	446.9	444.2	441.3
55°	425.1	416.6	408.1	402.4	399.4	396.4	393.4	390.4
57.5°	374.8	366.6	358.2	352.8	350.1	347.4	344.8	342.1
60°	341.6	333.3	325.1	319.5	316.7	313.9	311.0	308.2
62.5°	308.9	301.3	293.6	288.4	285.5	282.7	279.9	277.0
65°	261.0	253.5	245.9	240.8	237.9	235.1	232.3	229.4
67.5°	215.2	208.3	201.4	196.8	194.6	192.3	190.0	187.8
70°	184.7	179.0	173.1	169.1	166.8	164.5	162.3	160.0
72.5°	156.5	151.2	145.8	142.4	140.8	139.3	137.9	136.3
75°	117.1	112.9	108.8	106.1	104.7	103.4	102.1	100.8
77.5°	83.2	80.4	77.5	75.6	74.6	73.6	72.6	71.7
80°	62.7	61.0	59.3	58.2	57.9	57.5	57.1	56.7
82.5°	46.9	46.1	45.2	44.8	44.5	44.4	44.1	43.9
85°	26.7	26.5	26.3	26.2	25.9	25.8	25.6	25.4
87.5°	14.0	14.3	14.5	14.6	14.6	14.6	14.6	14.5
90°	19.2	20.4	21.6	22.5	23.2	23.9	24.6	25.4
92.5°	19.2	20.4	21.6	22.3	22.7	23.0	23.3	23.6
95°	19.2	20.4	21.6	22.2	22.2	22.2	22.2	22.2
97.5°	38.7	32.1	25.4	22.2	22.2	22.2	22.2	22.2
100°	113.7	78.8	43.9	25.9	24.9	24.1	23.1	22.2
102.5°	221.1	214.5	207.9	196.6	180.7	164.7	148.7	132.8
105°	314.5	314.5	314.5	314.5	314.2	314.0	313.7	313.5
107.5°	398.3	398.4	398.4	398.0	397.3	396.6	395.9	395.3
110°	452.5	451.8	451.1	450.9	451.1	451.3	451.6	451.8





TEST NUMBER: P333694-930

CATALOG NUMBER: S125RDIW-S850D1340U930-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	506.1	505.3	504.4	503.8	503.4	503.1	502.8	502.5
115°	587.2	586.2	585.3	584.1	582.7	581.3	579.8	578.5
117.5°	665.4	664.1	662.9	661.9	661.4	660.8	660.1	659.6
120°	715.8	715.3	714.9	714.0	712.9	711.7	710.5	709.4
122.5°	763.9	763.4	763.0	762.1	760.8	759.4	758.0	756.7
125°	834.1	833.2	832.3	831.4	830.8	830.1	829.3	828.7
127.5°	898.4	897.8	897.3	896.2	894.5	892.8	891.0	889.2
130°	940.2	939.5	938.8	937.8	936.7	935.5	934.3	933.2
132.5°	979.3	979.2	979.0	978.4	977.2	976.1	974.9	973.7
135°	1036.7	1036.2	1035.8	1034.9	1033.5	1032.0	1030.6	1029.2
137.5°	1090.2	1090.3	1090.4	1089.8	1088.6	1087.4	1086.1	1084.9
140°	1123.1	1123.5	1124.0	1123.5	1122.1	1120.7	1119.3	1117.9
142.5°	1155.2	1155.4	1155.4	1154.8	1153.3	1151.9	1150.6	1149.2
145°	1200.7	1200.9	1201.2	1200.6	1199.1	1197.8	1196.4	1195.0
147.5°	1239.7	1239.9	1240.2	1239.5	1237.8	1236.1	1234.4	1232.7
150°	1264.5	1264.9	1265.4	1264.7	1262.8	1260.9	1259.1	1257.2
152.5°	1286.5	1286.9	1287.4	1286.8	1285.1	1283.4	1281.7	1280.0
155°	1316.7	1317.4	1318.1	1317.5	1315.6	1313.8	1311.9	1310.0
157.5°	1341.7	1342.5	1343.2	1342.6	1340.8	1338.9	1337.0	1335.1
160°	1357.3	1358.2	1359.2	1358.7	1356.8	1354.9	1353.1	1351.2
162.5°	1371.5	1372.9	1374.2	1373.8	1371.7	1369.6	1367.6	1365.5
165°	1389.8	1391.3	1392.7	1392.4	1390.6	1388.7	1386.8	1384.9
167.5°	1403.8	1405.4	1407.1	1406.9	1404.8	1402.7	1400.6	1398.5
170°	1410.9	1412.8	1414.6	1414.5	1412.4	1410.3	1408.2	1406.1
172.5°	1416.4	1418.1	1419.8	1419.6	1417.5	1415.4	1413.2	1411.1
175°	1422.5	1424.3	1426.2	1426.1	1424.0	1421.9	1419.8	1417.6
177.5°	1425.0	1426.3	1427.6	1427.5	1426.0	1424.5	1422.9	1421.5
180°	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0	1424.0

(END OF REPORT)